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Patent claims

1. A compound of formula la or lb,

wherein A is an (n + 1)-valent aliphatic, cycloaliphatic, araliphatic or aromatic radical and n is an integer from 0 to 5,

E is an (m + 1)-valent aliphatic, cycloaliphatic, araliphatic or aromatic radical and m is an integer from 0 to 3,

X is -O-, -COO- or -CHR₄-, with R₄ and R₃ together forming an ethylene group,

R₁ and R₂ are, each independently of the other, hydrogen or methyl,

R₃ is hydrogen, or R₃ and R₄ together form an ethylene group,

and R₅ is a monovalent aliphatic, cycloaliphatic, araliphatic or aromatic radical.

- 2. A compound of formula la according to claim 1, wherein X is -O- and A is a bivalent radical of a bisphenol or of a cycloaliphatic diol, the radical of a phenol novolak or cresol novolak, the bi- to tetra-valent radical of an isocyanate/polyol adduct or the tri- to hexavalent radical of a tri- to hexa-functional aliphatic polyol.
- 3. A compound of formula la according to claim 1, wherein X is -O- and A is a bivalent

radical of formula
$$CH_3$$
, CH_3

phenol novolak or cresol novolak, a trivalent radical of formula

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ \hline & & \\ & & \\ \hline & & \\$$

- 4. A compound of formula la or lb according to claim 1, wherein R₅ is C₁-C₂₀alkyl, C₅-C₁₂-cycloalkyl, C₆-C₁₀aryl or C₇-C₁₂aralkyl, each of which is unsubstituted or substituted by one or more amino groups, hydroxyl groups, C₁-C₈alkoxy groups or halogen atoms.
- 5. A compound of formula la or lb according to claim 1, wherein R₅ is C₂-C₁₀alkyl, C₂-C₁₀aminoalkyl, phenyl, benzyl, cyclohexyl or a radical of formula H₂N-Z-CH₂-NH-, wherein Z is a bivalent cycloaliphatic, araliphatic or aromatic radical or a radical of formula -(CH₂CH₂NH)_k-CH₂-, wherein k is 2 or 3.
- 6. A compound of formula Ia or Ib according to claim 1, wherein R₁ is n-butyl, n-octyl, cyclohexyl, benzyl, 2-aminoethyl, 4-(aminomethyl)pentyl, 5-amino-2-methylpentyl, 3-dimethylaminopropyl, 3-methylaminopropyl, 4-aminocyclohexyl or a radical of formula -CH₂CH₂NHCH₂CH₂NH₂,

$$H_3C$$
 CH_3
 H_2N
 CH_3
 H_2N
 H_2N

- 7. A compound of formula la or lb according to claim 1, wherein X is O- and R₁ and R₃ are hydrogen.
- 8. A process for the preparation of a compound of formula la according to claim 1 by reacting a compound of formula lla

wherein A, X, R₁, R₃ and n are as defined in claim 1,

with thiourea or a thiocyanate and subsequently reacting the resulting episulfide with an amine of formula R_5 -NH- R_2 wherein R_5 and R_2 are as defined in claim 1.

A process for the preparation of a compound of formula lb according to claim 1 by reacting a compound of formula llb

$$R_5$$
— X — CH_2 — C — CH
 R_1
 R_3
(IIb),

wherein X, R_1 , R_3 and R_5 are as defined in claim 1, with thiourea or a thiocyanate and subsequently reacting the resulting episulfide with a polyamine of formula E-(NHR₂)_{m+1} wherein E, R_2 and m are as defined in claim 1.

- 10. A composition comprising
 - (A) an epoxy resin and
 - (B) a compound of formula la or lb according to claim 1.
- 11. A composition according to claim 10 comprising, in addition,
 - (C) a polyamine.

- 12. A composition according to either claim 10 or claim 11 comprising component B and, where applicable, component C in such amounts that the sum of the amine and mercaptan equivalents is from 0.5 to 2.0 equivalents, based on one epoxy equivalent.
- 13. A cross-linked product obtainable by curing a composition according to claim 10.
- 14. Use of a composition according to claim 10 as coating composition, adhesive, bonding composition for composite materials or casting resin for the manufacture of mouldings.